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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,308	03/22/2004	Yoshinori Tsueda	016907-1646	9149
22428	7590	02/02/2006	EXAMINER	
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			REIS, TRAVIS M	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,308

Applicant(s)

TSUEDA ET AL.

Examiner

Travis M. Reis

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,11,12 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,11,12 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 11, 12, & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakagami (U.S. Patent 6882807) in view of Kakehashi (JP 404348008 A) & Watanabe (U.S. Patent 6055403).

With reference to claims 1, 2, 11, & 12, Sakagami discloses a heat generator (201) for use in a heating apparatus comprising a central shaft (211) (col. 1 line 30), an elastic body (212) formed to be a predetermined thickness at a circumference of the central shaft, a conductor layer (213) formed to be a predetermined thickness at a circumference of the elastic body; and a second elastic body (214) formed to be a predetermined thickness at a circumference of the conductor layer (Figure 9B), wherein the heat generator is elastically deformed at a position which contacts a member (202) to be contacted with the second elastic body at a predetermined pressure (207), and can supply heat and pressure to a medium (205) to be supplied between the second elastic body and the member to be contacted, and an image developing agent (204) carried by the medium; and ferrous magnetic field generators (203) (Figure 15) being provided in portions along the longitudinal direction of the central shaft, as shown in Figures 1A & 1B of the same type of magnetic generators (3) of another embodiment.

Sakagami does not disclose the core material of the shaft is ferrite and an outer circumference of the shaft is coated with resin or non-ferrous material.

Kakehashi discloses a multipolar magnetic dielectric roll formed with a dielectric layer

Art Unit: 2859

coating made by mixing ferrite powder and thermoplastic resin to coat a central shaft core (1) (CONSTITUTION lines 1-6).

Watanabe discloses a fixing member apparatus which discloses using ferrite to increase heating generation (col. 4 lines 62-67). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the dielectric layer of ferrite and thermoplastic resin disclosed by Kakehashi to the shaft disclosed by Sakagami in order to increase heat generation as taught by Watanabe.

With reference to claim 18, Sakagami, Kakehashi, & Watanabe do not disclose the core has a resistivity of 10^6 ($\Omega \cdot m$), a Curie temperature of $180^{\circ}C$, or a relative permeability of 200, satisfying $\mu \leq 2.81 \times 10^9 \rho$. However, to choose a resistivity of 10^6 ($\Omega \cdot m$), a Curie temperature of $180^{\circ}C$, or a relative permeability of 200, satisfying $\mu \leq 2.81 \times 10^9 \rho$, absent any criticality, is only considered to be the " optimum " values of the central shaft, as stated above, that a person having ordinary skill in the art would have been able to determine using routine experimentation based, among other things, on the desired accuracy and since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. See *In re Boesch*, 205 USPQ 215 (CCPA 1980). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to make the central shaft disclosed by Sakagami, Kakehashi, & Watanabe to have the properties of a resistivity of 10^6 ($\Omega \cdot m$), a Curie temperature of $180^{\circ}C$, and a relative permeability of 200, satisfying $\mu \leq 2.81 \times 10^9 \rho$, in order to have a central shaft that would be long lasting under thermal and magnetic stress.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 2, 11, 12, & 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Art Unit: 2859

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M. Reis (571) 272-2249. The examiner can normally be reached on 8--5 M--F. If unreachable, contact the examiner's supervisor, Diego Gutierrez (571) 272-2245. The fax number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) 866-217-9197 (toll-free).

Travis M Reis
Examiner
Art Unit 2859



Diego Gutierrez
Supervisory Patent Examiner
Tech Center 2800

tmr
January 31, 2006